

Claims

- [c1] A method of processing an image arising from a sensor (CPT) divided into at least two zones (ZD, ZG) associated with different processing pathways, with a view to eliminating the defects due to the differences between these pathways, in which one zone (ZD) is regarded as reference zone and the associated processing pathway is regarded as reference pathway, and another pathway (ZG), the so-called pathway to be corrected, comprises a correction table (TC) matching each signal level (b_i) on input to the table, with a corrected level (b'_i) on output from the table, characterized in that the correction table is modified iteratively, during each new use of the sensor, according to the following steps:
- measurement of signal levels (a_2, a_1, b'_1) arising from the processing pathways for a group of border points (A_1, A_2, B_1) around the border between the two zones,
 - determination of an abnormal divergence (E) between the measurements (a_2, a_1, b'_1) on either side of the border, this divergence being the consequence of an inappropriate correction of a level (b_1) on input to the table,
 - memory storage of new values in the correction table for a series of input levels (b_i) of the correction table around the level (b_1) for which the correction is inappropriate,
 - and repetition of these steps for other groups of border points.
- [c2] The method as claimed in claim 1, characterized in that the modifications performed are sufficiently small as to end up with a progressively stabilized table.
- [c3] The method as claimed in either of claims 1 and 2, characterized in that the divergence is defined by the discrepancy E between the value of the signal (b'_1) supplied by the pathway to be corrected for a border point (B_1) and the extrapolation of the values (a_2, a_1) supplied by the reference pathway for neighboring points (A_2, A_1) situated on the other side of the border.
- [c4] The method as claimed in one of claims 1 to 3, characterized in that a correction value equal to a fraction of the determined divergence (E) is added to

the previous content of the correction table for a series of input levels (i) of the table around the level (b1) for which the correction is inappropriate.

- [c5] The method as claimed in claim 4, characterized in that the correction made to the content (b'_i) of the table depends on the input level (i) in the table, and is progressively decreasing down to zero for input levels decreasing below the level (b1) for which a divergence is noted.
- [c6] The method as claimed in claim 5, characterized in that the correction made to the content of the table is constant for a series of input levels of the table which are greater than or equal to the level (b1) for which a divergence is noted.
- [c7] The method as claimed in one of claims 4 to 6, characterized in that a correction is made to the content (b'_i) of the table for all the input levels (i) of the table.
- [c8] A device for electronic image capture, using a matrix image sensor (CPT) divided into at least two zones (ZD, ZG) and supplying a digital value for each image point, this digital value being computed in a first processing pathway for the points of the first zone and in a second processing pathway for the points of the second zone, the processing pathways being at least partly distinct, the second processing pathway at least being provided with balancing means for eliminating the visible defects engendered by the small differences existing between the two processing pathways, characterized in that the balancing means comprise a digital conversion table (TC) matching each possible digital value (b_i) of the second pathway with another digital value (b'_i) minimizing the influence of the differences between pathways, and means (MC) for dynamically modifying the content of this table on the basis of an analysis of a divergence between on the one hand the digital values (a_2, a_1) of the signals arising from one processing pathway and corresponding to border points (A2, A1) situated on one side of the border between the zones and on the other hand the digital values (b'_1) of the signals arising from the other processing pathway and corresponding to border points (B1) situated on the other side of the border, for any image observed while using the device, the modification being performed for a whole series of luminance values around a luminance value for

which a divergence is noted.

- [c9] The device for image capture as claimed in claim 8, characterized in that it comprises means for calculating a divergence $E = 2a1 - a2 - b'1$ on the basis of the digital values $a2$ and $a1$ arising from a processing pathway and corresponding to two points on one side of the border and a digital value $b'1$ arising from the other processing pathway and corresponding to a point situated immediately on the other side of the border.
- [c10] The device as claimed in claim 9, characterized in that it comprises means for writing to the correction table, for a series of input values i of the table, a content b'_i corrected with respect to the previous content at the same address, the correction being equal to a fraction of the divergence E .
- [c11] The device as claimed in claim 10, characterized in that it comprises means for correcting the content b'_i of the table by a value kE for the values of i greater than b'_i and by a value progressively decreasing from kE for the values of i less than b'_i .
- [c12] The device as claimed in claim 11, characterized in that it comprises means for correcting the whole table (TC) when a divergence is detected for a group of border points.